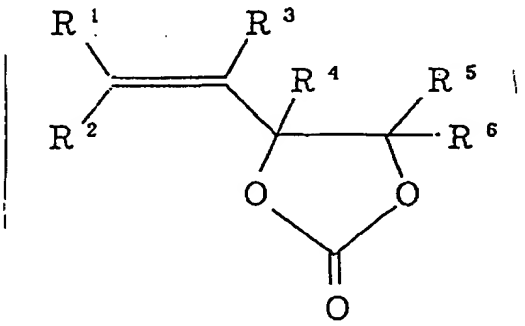
Abstract

A non-aqueous electrolyte secondary battery comprising a negative electrode, a positive electrode and an electrolyte having a lithium salt dissolved in a non-aqueous solvent characterized in that said non-aqueous solvent contains a vinylethylene carbonate compound represented by the general formula (I) in an amount of from 0.01 to 20% by weight is subject to minimized decomposition of the electrolyte and can provide a high capacity as well as exhibits excellent storage properties and cycle life performance.



(I)

wherein R^1, R^2, R^3, R^4, R^5 and R^6 each independently represent a hydrogen atom or an alkyl group having 1 to 4 carbon atoms.